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Mississippi State University ED.D. 1983

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By

Shirley M. Jones

A Dissertation
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education
in the Department of Counselor Education

Mississippi State University

May, 1983

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S.M.J.

ABSTRACT

Shirley Maxwell Jones, Doctor of Education, 1983

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Title of Dissertation: The Impact of a Career Planning Workshop on Freshman Student Participants on Short-term Retention, First Semester Grade Point Average, and Questionnaire Responses

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Abstract

The purpose of this follow-up study was to evaluate the impact of a pilot career planning workshop on freshman student participants by comparing their short-term retention, first semester grade point average, and questionnaire responses with those of nonparticipants. The questionnaire, developed by this researcher, was designed to assess factors related to career maturity, school adjustment, school completion goals, and faculty interaction.

Randomly selected subjects were Mississippi State University freshman students who participated in a freshman orientation program prior to their first semester of enrollment. Three groups were analyzed. The experimental group and control groups consisted of

career ambivalent students, with the experimental group participating in a career planning workshop during orientation. The comparison group was nonambivalent and did not participate in a career planning workshop.

Statistical analysis of the first hypothesis stating that there will be no significant difference in short-term retention among the three groups indicated a significant difference; therefore, the hypothesis was rejected. The second hypothesis stating that there will be no significant difference in first semester grade point average among the three groups was not rejected when no significant difference was found. The third hypothesis stating that there will be no significant difference in the type of response given in each of 19 questionnaire items among the three groups was rejected on six of 19 items which proved to be significantly different. The remaining 13 parts of the hypothesis were not rejected.

Significant differences among the groups implied that the treatment in this study had an impact on the experimental group in terms of short-term retention, suggesting the possible value of career planning intervention programs. Students who have clear career goals tend to achieve higher grades than students who are ambivalent. However, the comparison group's achievement level was not significantly different, suggesting that some phenomenon occurred which impacted motivation and academic performance, especially for the experimental group.

Recommendations in the form of further research, student services and academic program implementation, and strategies designed to impact on retention and academic success among students were presented.

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CHAPTER I

Introduction

Student attrition is one of the most critical problems facing higher education in the 1980's. Research indicates the largest attrition rate among traditional college students occurs during the freshman year, at midterm and at midyear. The most crucial period occurs during the first six weeks (Iffert, 1958; Sheffield & Meskill, 1974; Astin, 1975; Cope, 1978; Noel, 1978). Many studies have been conducted to determine what contributes to this early exodus of freshman students (Summerskill, 1962; Spady, 1970; Tinto, 1975; Astin, 1975; Pantages & Creedon, 1978).

Why do college students drop out? Or more importantly, why do some persist while others drop out? Cope (1978) asks a more penetrating question: "What appears to make the difference" (p. 1)? Despite extensive research, too little is known about why students withdraw. Nevertheless, a consistent conclusion exists which indicates that certain experiences during this critical freshman year contribute to improved retention. Student involvement is a key factor. A student's tendency to drop out is inversely related to the degree of direct involvement in the academic and social life of an institution.

Characteristics of students who drop out tend to be freshmen, male, nonresidential, lack clear career goals, have little or no involvement in extracurricular activity, lack personal attention from a faculty

member, perceive less social interaction with peers, and work off campus or not at all. Dropouts also tend to smoke, are less motivated, and use campus resources less than persisters. By contrast, persisters tend to live in a campus residence hall during the freshman year, have clear career objectives, relate to at least one faculty member, work on campus, have peer support in a social system, and are involved in some extracurricular activity.

Cope (1978) summarized research findings of student characteristics related to retention, as having to do with students' families, themselves, their educational experiences prior to entering college, and their attainment expectations. Attitude and commitment to goals are important individual characteristics. The higher the personal expectation for a degree or career, the greater the likelihood for persistence.

Academic performance, reflected in achieving good grades, is a sign of student involvement in the academic life and environment of an institution. Academic success reduces attrition and is especially important during the first semester of the freshman year. Academic success is enhanced when realistically derived career goals have been developed, reflecting a level of career maturity. Where there is a lack of purpose and career identity, motivation is affected, contributing to poorer academic performance and increased attrition.

Attrition rates have been persistent and difficult to alleviate for many decades. Solutions are most acute at this time, in retrenchment periods when concern for scarce institutional and individual resources demand increased efforts to identify and rectify causal factors of student attrition. As higher education responds to the

effects of decreasing enrollments and attrition, programs and institutional goals will be evaluated. Lee Noel (1978), Vice President of the American College Testing (ACT) Program, suggests that most colleges can reduce attrition by 6 to 8%, with appropriate intervention programs designed to assist the student's motivation and academic success in college. Further, he proposed that retention is not an institutional goal, nor is zero dropout rate; rather, that retention is a by-product of improved educational programs and services for students.

Previously alluded to, among the many complex phenomena which are related to freshman year attrition is the level of student career maturity, often expressed in terms of academic major/career goal certainty. Chickering's (1981) psychosocial theory of development, an elaboration of Erickson's stages of identity and intimacy, has implication for the focus of career programming. His theory suggests that freshmen and sophomores are working toward an internal locus of control dealing with personal emotions, which suggests why affiliation and belongingness is so important. Developmentally, they are ready for exploring of academic majors and competencies required, but are not ready for determining purpose. Therefore, an exploratory mode and tentativeness regarding career goals may be more appropriate. Reduction of anxiety among freshmen regarding academic major/career choice could be a direct outcome of an appropriately designed career planning program. Salomone (1982) concurs that the state of being undecided about educational majors is a normal occurrence for college freshmen. He suggested that being undecided is most often a state when not enough information has been gathered to make a sound and confident decision.

Other writers (Crites, 1969; Holland & Holland, 1977) discussed multiple types of undecided persons: (a) those who simply do not have to decide, so stay undecided, (b) those who are mildly anxious, immature or incompetent, and (c) those who have a predisposition toward indecisiveness. Institutions can and should identify students who are undecided and ambivalent about their academic/career goals and appropriately assist them in developing realistic career goals.

Research (Westbrook & Cunningham, 1970; Crites, 1974; Shertzer & Stone, 1976; Willner, 1980; Balistrieri, 1981) confirms that development of career maturity can be enhanced through career counseling; i.e., career planning which includes developing decision-making skills and establishing career goals. Programs which assist students in exploring, crystalizing, clarifying, revising, and making realistic academic major/career goal decisions and which include on-going career planning opportunities may be the most helpful strategy in reducing attrition rates among freshmen. Career planning programs presented as a part of the student's initial orientation experiences serves as a springboard for developing career maturity. Figler (1979) suggested that orientation is an important time to supply career information, including career profile data on graduates. Astin (1975) concurred, specifically devising a worksheet which permits a student to calculate his own profile to see how specific kinds of choices relate to attrition.

Mississippi State University (MSU) reflects the national attrition profile of similar public institutions, which Lenning, Beal & Sauer (1980) said was 30 to 35% over a four-year period. Attrition concerns were recently acknowledged by members the MSU Task Force on Retention of

Students Committee (Note 1) who recommended a "special emphasis program for freshman year attrition problems."

The MSU report interfaced with this writer's interest, especially in identifying ways to contribute to and improve freshman student college adjustment and success. Therefore, a pilot career counseling program, entitled Career/Major Decision-Making (C/M D-M) Workshop was planned and implemented in conjunction with the 1982 summer orientation (see Appendix A and Appendix B). The workshop preceded registration, at which time students are requested to declare an academic major.

Statement of the Problem

The purpose of this follow-up study was to evaluate the impact of a pilot career planning workshop on freshman student participants by comparing their short-term retention, first semester grade point average, and questionnaire responses with those of nonparticipants. Three groups were examined. They were career ambivalent students who participated in a career planning workshop held in conjunction with the regular orientation activities (experimental group; G_1), career ambivalent students who did not participate in a career planning workshop during orientation (control group; G_2), and nonambivalent students who did not participate in a career planning workshop during orientation (comparison group; G_3).

The independent variable was a career planning program, entitled Career/Major Decision-Making (C/M D-M) Workshop, conducted in conjunction with regular orientation activities. The dependent variables were short-term retention, first semester grade point average, and questionnaire responses.

Hypotheses

The hypotheses tested in this study were the following:

1. There will be no significant difference in short-term retention among the three groups.

2. There will be no significant difference in first semester grade point average among the three groups.

3. There will be no significant difference in the type of response given in each of the following questionnaire items among the three groups:

a. Number of changes in academic major by college since orientation

b. Differences in certainty of current choice of academic major

c. Number of changes in career choice since orientation

d. Differences in certainty of current career choice

e. Certainty of clear and explicit career goals

f. Level of anxiety caused by career decisions

g. Career choice reflects own values, self-determined goals

h. Perceived relationship of academic major to career goals

i. Knowledge of self

j. Being a mature decision maker

k. Being more realistic in choosing a career

l. Feeling confident about career goals

m. Possession of competencies to acquire skills needed in chosen career

n. Assessment of college achievements and experiences as anticipated

o. Plans for successfully completing the freshman year

p. Plans to graduate from college

q. Assessment of faculty advising as helpful

r. Assessment of the quality of faculty interaction

s. Needing help in career decision making

Significance of the Study

This study contributed further information about the relationship between academic major/career goal certainty and grade point average and short-term retention. It provided some cues regarding the level of career maturity among freshman college students. Information generated from this effort provided feedback for developing future orientation programs and on-going career related student services. The study could sensitize administrators and faculty to the interrelatedness of student academic behavior and career certainty, prompting an evaluation of institutional goals, purposes, and strategies for reducing attrition.

Assumptions

The following assumptions are made in testing the hypotheses involved in this research:

1. The self-reported information on the data-gathering instrument is correct.

2. The sample population in this study is representative of the total population of entering freshman students at MSU.

3. The sample population in this study is typical of those found in other Mississippi state-supported, coeducational universities.

4. The sample population in this study is typical of those found in similar state-supported, coeducational universities in the South, where the instituion requires freshman students to declare an academic major at the time of admission.

Delimitations

The scope of the study was limited due to a potential selection bias given the volunteer nature of the subjects who participated in the C/M D-M Workshop. The nature of the study itself caused potential selection bias because it was a six-hour pilot program available to students during the regularly scheduled orientation period. Therefore, results must be considered according to the conditions which existed for the experimental group.

Definition of Terms

The following operational definitions were used in this study:

Academic success - a state of academic achievement reflected in grade point average, where probation-free status was maintained.

Career ambivalent - a state of sureness or certainty, expressed as "fairly sure" or "unsure" in response to statements on the ACT Assessment Student Profile Report regarding one's current selection of academic major.

Career counseling - a process which focuses on planning and making decisions about education and careers and includes exploration of values, attitudes, information and factual data about an individual's resources. It is an organized program which assists an individual in learning about the world of work, developing self-understanding, gaining

decision-making skills and locating jobs (Tolbert, 1980). In this study, career counseling is synonymous to career planning.

Career maturity - a developmental process which Crites (1974) defines in terms of four specific dimensions: (a) career choice competencies, (b) career choice attitudes, (c) realism of career choice, and (d) consistency of career choice.

Career/Major Decision-Making (C/M D-M) Workshop - a pilot career and information counseling program designed for entering freshman students who had expressed a level of uncertainty regarding their academic major and career choice. The workshop was held in conjunction with the regular orientation program (see Appendix A and Appendix B).

Entering freshman student - the "traditional" freshman student who had no previous college experience, and was entering college upon graduation from high school, usually in the 17- to 19-year-old age bracket.

Grade point average - data derived from a comparison of semester hours with quality points assigned to letter grades, where A = 4.00 and D = 1.00, as recorded by the registrar.

Hours completed - the number of semester hours completed during the fall semester of the freshman year, as recorded by the registrar.

Non-ambivalent - a state of sureness or certainty, expressed as "very sure" in response to statements on the ACT Assessment Student Profile Report regarding an individual's current selection of academic major.

Short-term retention - continuous enrollment through the first semester (Fall 1982) and registration for the second semester (Spring 1983).

CHAPTER II

Review of Selected Literature

Enrollment and Attrition

An early attrition study (McNeely, 1937) revealed that approximately 60% of the nation's entering freshman students would not complete a baccalaureate degree within the traditional four-year period. Summerskill (1962) confirmed that finding, indicating that 40% of entering students graduate within four years. Eckland's (1965) study revealed an overall dropout rate of 30%. A recent longitudinal study (Pantages & Creedon, 1978) reflected similar attrition levels among entering freshman students, with a 40% dropout or transfer rate over a four-year period. Cope (1978) concurred, suggesting that approximately 40% of entering freshmen never achieve a degree.

A heightened, intense concern among both academic and student affairs professionals regarding the identification and management of student attrition has been reflected in programs and workshops at many recent national, regional, and state conferences. Clear demographic signs predict enrollment decreases for the next ten years of the traditional age (18- to 22-year-old) college student. This will have a profound effect on higher education. According to Lublin's (1980) article in the Wall Street Journal, "Enrollment of full-time college students will begin to drop in fall, 1982 . . . and the number of undergraduates may decrease between 5 and 15% over the next two decades"

(p. 5). Economist David Breneman (Note 2) predicted a more dismal picture, suggesting a 15 to 25% drop in enrollment by mid-1990. Based on these population projections, attrition rates have immediate impact, monetarily and programmatically. With declining enrollments and institutional financial stress, Noel (1978) suggested that the connection has finally been made between improved student services and retention, as a base for keeping up full-time equivalents (FTE's). "In a struggle to maintain FTE's, it is clear that keeping students is as vital as attracting them. The concept of increasing student services didn't take, but the idea of increasing enrollment did" (p. 6).

Although a minority view exists that leaving college before the completion of a degree can be of benefit to some students (Summerskill, 1962; Cope & Hannah, 1975), attrition is more commonly thought to represent a loss of investment in personal and institutonal resources.

Factors of Attrition

Attempts to identify and rectify possible causal factors of student attrition have received much attention in professional journals and research publications. Research efforts during the last 50 years have sought to isolate characteristics that identify students as persisters or dropouts. Attrition related data include demographic, academic, college environment and motivational factors. Numerous studies with varied and often conflicting outcomes have been generated (Iffert, 1958; Little, 1959; Summerskill, 1962; Eckland, 1964; Astin, 1964; Johansson & Rossman, 1973; Tinto, 1975). In predictive research, attempts have been made to isolate and project causality through the use of quantifiable units of definition (age, gender, home town, SAT

scores, high school size). From such analyses, profiles of dropout-prone students have been developed, providing insight. Such profiles have been criticized by other researchers (Cope & Hannah, 1975) as too general in scope and too linear in causality. Also, the accuracy of profiles in the prediction of student persistence has been questioned (Pantages & Creedon, 1978). Beyond that, methods of institutional intervention are not generally suggested inasmuch as what works for one campus may not be effective for another. Sexton (1965) articulated the necessity for developing individualized strategies when she concluded, "Enormous complexity . . . and an impossibility of developing universally applicable methods of prevention and cure" (p. 320).

Other methods of research have attempted to identify the relationship of human and institutional variables to arrive at a more dynamic definition of cause. Tinto (1975) viewed the dropout process as longitudinal interactions between the individual and the academic and social systems of the university. During this time a person's experience continuously modifies his goal against the institution's commitments, leading to persistence or to varying forms of dropout.

In theory, retention is premised upon the degree of "fit" exhibited between a student and a university. Therefore, attrition becomes a product of incongruences; this theory is based on more than consideration of demographic profiles. Theory construction focuses on varying attitudes, commitments, feelings, and perceptions (Hackman & Dysinger, 1970; Cope & Hannah, 1975; Tinto, 1975).

To some degree, these two approaches overlap. Astin (1975) combined the statistical and congruence models in a 1972 followup of a

1968 survey. The survey included student perceptions of attrition causes with a primary focus of analysis on the personal and career history factors that lead to a decision to leave or persist. Astin developed a series of institutional considerations/recommendations.

Despite the considerable amount of research on attrition and retention, the phenomenon is far from being fully understood. The theoretical bases and methodologies of research have been provided. Despite the dropout behavior theory available, Cope (1978) stated that, "Precious little research builds upon explanatory concepts " (p. 2). Cope also stated the following:

> Research on individual characteristics tells us to recruit men and women with good academic records from families with high expectations. The research on college characteristics leaves us without firm guidelines. The research of integrating the individual with the academic and social milieu suggest that this is where programs for retention will be most successful. (pp. 9-10)

Beal & Noel (1979) conducted a national survey for the purpose of identifying, analyzing and compiling information about campus action programs and efforts for improving student retention. (p. 1) The survey's most important reported factors of the dropout-prone student, on a scale of 1 (low) to 5 (high), were as follows: low academic achievement (4.45); limited educational aspirations (4.09); indecision about major/career goals (3.93); and inadequate financial resources (3.64).

Career Planning and Attrition

Of the four attrition related factors cited in the 1979 national survey, "indecision about major/career goals" would appear to be programmatically feasible and justifiable as an institutional commitment,

in an effort to assist students and reduce attrition. Career planning, as an institutional strategy, has been identified by Hillery (1978) as a primary factor in student enrollment and the second most important factor in student attrition (p. 14). Wessel, Engle & Smidchens (1978) proposed that, "To reduce attrition, support programs designed to instill early and tentative commitment and direction from entering students must be established" (p. 31). Hackman and Dysinger (1970) suggested that commitment and academic competence may interact in determining persistence, with persisters having the highest level of commitment as well as academic competence. Noel (1978) revealed that the most frequent reason talented students give for dropping out of school is uncertainty about what to study. Further, only one of every three entering freshmen is "very sure" about an academic major. Willner (1980) proposed that the relationship between goal orientation and attrition is evidenced by students who cite "to prepare for a career" as a major reason for attending college. This group has the largest percentage of avowed persisters, the largest portion coming from those indicating an already determined educational objective. Of the Willner study, more than 54% of the students surveyed indicated ambivalence about their career objectives, yet career assistance was requested by only 35.5% of these students.

Wessell (1978) suggested that, "Students desiring assistance in making career decisions must be aided, and those not feeling the need to make tentative commitments and decisions must be assisted (forced, cajoled, encouraged) to decide" (p. 31). Weigand (1953) noted that successful students tend to make decisions based on their own interests,

aptitudes, and experiences while the unsuccessful student is influenced more by another person, parent, or friend.

Dropout students' reasons for attending college are usually unclear. Willner (1980) illustrated this fact by stating that, "Most liberal arts students are extremely uncertain about career objectives and generally fail to see any connection between their studies and preparation for a future occupation" (p. 49).

Weitz, Clarke, & Jones (1955) analyzed the relationship between career goals and academic preparation and performance and found a direct relationship. Men with career goals were more academically successful than men without such goals. Women did about equally well with or without such goals. This latter finding was also reported by Zorbaugh & Kuder (1937). These two studies may simply reflect the cultural role expectation for women of those eras, which was to discourage professional careers which necessitated women being away from the home and children. A recent study by Gurin, Newcomb, & Cope (1968) noted that female dropouts tend to have lower levels of career goal commitment relative to persisters than do male dropouts. Tinto (1975) suggested that since it is more common among females than males to withdraw voluntarily, it could be implied that levels or absence of goal commitments are related to attrition.

Sewell & Shah (1967) reported that by far the strongest independent influence upon college completion, once family social status and ability are accounted for, is the level of educational plans held by the student. Similarly, Steele (1978) reported the student's perception of progress toward academic major/career goals was the most highly

correlated factor with retention. Chase (Note 3) listed lack of clear career goals as one of three major reported reasons for leaving college.

Marshall & Simpson (1943) found that college students who ranked relatively mediocre in academic aptitude made medium-to-high grades when they had definite career goals. Students with a tentative career choice ranked high in both academic aptitude and grades, while the undecided student ranked medium-to-low in academic aptitude as well as consistently low in academic performance.

Often, students are not aware of the need to develop career decision-making skills. Many do not perceive a relationship of career decision certainty to motivation and academic success. Without this sensitivity or knowledge, students appear apathetic or lacking readiness. Gaining access to a student's personal agenda regarding the level of certainty about career goals is a requirement for implementing effective institutional attrition strategies. Developmentally, a student who has not reached a point of self-direction would benefit from a systematic career planning program which provides educational and self-analysis data for developing career decision-making skills and in setting realistic career-oriented goals. Freshman students who have established career goals are behaviorally directed toward achieving those goals, reflected by grades and retention in the classroom. To the extent that such goals are realistically determined, through reflective self-assessment and skills development, individual students are more apt to experience academic success. Applicable to this point is one of McGregor's (1960) Theory Y assumptions: individuals will exercise self-direction and self-control in the service of objectives

to which they are committed. Therefore, what gives meaning to life resides in goals which are set by the individual: the things for which a person strives, his wants, needs, desires, and wishes. Goals, then, provide the direction for human behavior, and achieving them leads to satisfaction of emotions and desires. One of the primary purposes of higher education is assisting students in developing and achieving personal career goals.

Academic Major Decision and Attrition

Newlon & Gaither (1980) investigated how declaring a major at entrance of college versus remaining undecided affects attrition, finding significant differences for those who declare a major remaining in school. Foote (1980) compared determined- versus undetermined-major students in Arts and Sciences (A&S) and found that even though the two groups who remained in school appeared to be equivalent in past academic achievement, the determined students were more academically successful, achieving higher grades and completing more courses. Also, less than 13% of all entering students with a stated major in A&S persisted in that major for more than two years. The determined persisters accounted for less than 8% of the total class, suggesting that more than 90% of that class were unsure about their academic major. Newlon et al. (1980) suggested it was not merely the declaration of a major but a particular major which provided the greatest benefits, with students in professional schools as compared to arts or humanities who had higher persistence. A primary conclusion of this study was that while the impact of factors affecting attrition varies across schools within a

university attributes such as gender, stage of career, and undecided major status exhibited significant relationships with attrition rates.

Borow (1946) suggested that earliness and definiteness of choice do not seem as crucial to academic achievement as is appropriateness of choice. Wessell, Engle, & Smidchens (1978) seem to disagree, supporting programs designed to instill early, though perhaps tentative, academic major commitment and career direction among freshman students.

The importance of an academic major/career goal decision as it relates to academic success and attrition has been confirmed. Tinto (1975) concluded that, once ability is taken into account, commitment to the goal of college completion is the most important variable determining college persistence; specifically, that, "Whether measured in terms of educational plans, educational expectations, or career expectations, the higher level of plans, the more likely the persistence" (p. 102).

The Critical Freshman Year

The critical period for deciding whether to stay or leave college for the traditional student occurs during the freshman year. The comprehensive study by Iffert (1958) and subsequent studies (Astin, 1975; Cope, 1978) confirmed this phenomenon. Depending on how data are analyzed and interpreted, research studies (Sheffield & Meskill, 1974; Astin, 1975; Cope, 1978) and national norms indicate that approximately 50 to 80% of the attrition rate occurs during the freshman year, with 50% occurring during the first six weeks. Recently, Beal & Noel (1979) found that 36% of entering students drop out during the freshman year, 50% of which occurs within the first six weeks.

Appropriate intervention programs prior to or during this critical period of decision could result in reduced attrition among freshman students, especially for students who are ambivalent about their academic major/career goals. Effective career planning would have an effect on attrition by responding to the following problems, outlined by Hillery (1978):

> 1. Far too many individuals enter postsecondary institutions with impulsive career/educational choices. They have made educational decisions without an adequate career-referenced plan. Impulsive choices seldom sustain individuals through postsecondary programs.
>
> 2. A distressingly large number of individuals have engaged in some career exploration or planning, but their decision making has been greatly influenced by highly romanticized descriptions of occupations. At some point during their career preparation, they conclude that the chosen career is not what they had thought it would be and discontinue or redirect their efforts. Since the former course of action is more frequent, the negative impact of unrealistic career choices on attrition is clear. (pp. 14-15)

Reducing attrition is a special interest among orientation administrators, and the value of their efforts is not always easy to quantify. However, is there some indication that those students who receive additional advice and counsel persist longer? This investigation is designed to provide a general, though not definitive, answer to the question.

Glennan (1975) reported that the freshman attrition rate was reduced from 45 to 6% in two years, attributing the change to personal and career counseling. In a longitudinal study, Endo (Note 4) found that, as a group, persisters when compared with nonpersisters used campus advising sources more; furthermore, that the frequency of using

career and academic advising sources on campus was the second most important variable for men and the first most important variable for women.

Profile of MSU Freshman Students

It is clear that many students enter college without clear career goals, often because little or no opportunity for previous career planning is available or because students simply do not take advantage of those opportunities available. Many students entering MSU have no previous career planning. However, MSU's institutional policy requires a decision regarding an academic major at the time of admission. Most MSU students enter with a declared academic major. According to a recent ACT class profile (Note 5) of students who enrolled, 33% indicated "very sure" and 47% indicated "fairly sure" regarding their educational major. However, it is probable that many of these students do not know specifically what academic work and career outcomes are related to their declared academic major. Further, they may be unclear about how a chosen career relates to individual aptitudes, abilities, personality, and values. Unrealistic career choices may be a major factor in the patterns of change in academic majors/career goals and dropout rates among students. Institution-wide data revealing academic major/career path changes at MSU are not available; however, Astin (Note 6) presented norms for the South which indicated that 11.9% of men and 13.6% of women will change career choice. Of this group, only 5.3% of men and 7.1% of women will seek career counseling.

According to a previously cited ACT report (Note 5), 41% of MSU freshman students indicated a need for help in career and educational plans, with 20% indicating conflict or ambivalence about their educational major or career goals. A total of 213 students who indicated career ambivalence requested career counseling. Departmental data indicated MSU undergraduate students seeking career counseling through the university Placement and Career Information Center (PCIC) and the Counseling Center (CC) totaled 396 and 367, respectively, in 1981-82. The 1982-83 respective projected rates total 515 and 425. The Counseling Center director estimates that one-half of this total will be freshman students. Institutional withdrawal data reported by the MSU Counseling Center indicated 70 freshman withdrawals, or 2.5% of the freshman class, for fall 1981. This percentage excludes those students who fail to withdraw formally or who simply do not return to school. The 2.5% reflected a considerably lower rate than those suggested in the national studies by Lenning and others (1980). More definitive data are needed to allow informed institutional decisions regarding the attrition problem at MSU.

Attrition Patterns of Men and Women Students

As noted, differences in attrition rates among men and women suggest further clarification. Many studies (Iffert, 1957; Johansson & Rossman, 1973; Sewell & Shah, 1967; Summerskill & Darling, 1955) found no significant differences in the overall attrition rates between men and women, whereas Newlon & Gaither (1980) suggested males have a more positive persistence rate.

Darley (1962) observed that the gender variable is important in attrition at some institutions and not at others. Tinto's (1975) research suggested consideration of an affiliative relationship motivation, i.e., social integration, of women compared to men. This observation infers that women tend to persist in environments where affiliation is high, suggesting that participation in institutional programs may be related to academic success of women. The positive impact of the frequency and quality of interaction between student and faculty and other institutional personnel has been verified through research spanning more than 25 years. Some evidence (Tinto, 1975; Pascarella & Terenzini, Note 7) suggested that social integration is more important than academic integration for women than for men; to the extent that such integration is achieved, attrition rates are affected. Stein & Bailey (1975) also proposed that females achieve on the basis of social and interpersonal rewards, not for achievement purposes. Several researchers (Spady, 1970; Coker, Note 8) indicated that grade performance tends to be more important for male than for female students, especially during the first year of college when most academic dismissal among males occurs. Tinto (1975) suggested that, "Whether grade performance is simply a proxy for this difference or whether it further distinguishes between males and females in specific categories of dropout behavior is difficult to determine" (p. 105). Pascarella & Terenzini (Note 7) pointed out that,

> Discussions with faculty centering on career concerns were significantly and positively related to retention . . . further, that the quality of informal interaction with faculty was most important in influencing the persistence/withdrawal decisions of women. (pp. 8-9)

From a study on ability and achievement, Darley (1962) concluded that,

> On a national scope, there is too much loss among women in the system; as capable as men and generally superior to them in achievement, they withdraw with somewhat greater frequency; they graduate in smaller percentages, and their occupational choices fall below their level of potential. (p. 161)

With a changing social system encouraging and often requiring more and more women to contribute to the marketplace as heads of households or as contributing members of dual-career families, attrition rates among women as well as men should be of equal concern to administrators and faculties in higher education.

CHAPTER III

Procedures and Methodology

Selection of Subjects and Description of the Sample

The population of this study was comprised of entering freshman students who participated in the 1982 MSU Freshman Orientation Program. A pilot career planning program (C/M D-M Workshop) was held in conjunction with the regular orientation activities. Participants in the C/M D-M Workshop comprised the experimental group.

A total sample of 83 students was used in the study, with 23 subjects in the experimental group and 30 subjects in each of the control and comparison groups. Subjects were randomly selected from the population of the freshman class.

The experimental group consisted of students who expressed ambivalence on the educational plans statement of the national American College Testing (ACT) Assessment Student Profile Report, 1980-81. These students were defined as career ambivalent, having responded in a category other than "very sure" on the certainty statement regarding choice of educational major on the ACT report. These students voluntarily registered and participated in the C/M D-M Workshop.

The control group consisted of randomly selected students who expressed ambivalence on the educational plans statement of the ACT report. These students were defined as career ambivalent, for reasons previously cited, but did not participate in the C/M D-M Workshop.

A comparison group consisted of randomly selected students who expressed no ambivalence on the educational plans statement of the ACT report. These students were defined as career nonambivalent, having responded in the category "very sure" on the certainty statement regarding choice of educational major on the ACT report. These students did not participate in the C/M D-M Workshop.

Development and Description of the Independent Variable

The C/M D-M Workshop served as the independent variable in this study. The development and use of a career planning program offered during orientation as a research related activity was conceptualized by this writer and presented to the director of the MSU Placement and Career Information (PCIC) in late spring of 1982. Implementation of the concept was supported and a service program was endorsed as a pilot institutional effort. The program, conducted by selected PCIC staff members and this writer, offered undecided and ambivalent freshman students an opportunity to develop career decision-making skills related to a choice of academic major prior to registration.

As a team member working with two PCIC professional career counselors and the director, this researcher helped identify specific program content and implementation strategies which were developed in May and June, 1982. Scheduling and management duties were performed by one of the PCIC career counselors and secretarial support.

The six-hour format (see Appendix B) was an introductory career counseling program; i.e., career planning workshop, designed to help students assess self in terms of values, interests, and personality

traits and to clarify abilities and academic competencies in order to make an academic major decision and define career goals. The primary goal was to introduce and guide students through a series of activities, permitting them to learn the sequence and process of career decision making. Sensitization and exposure to the concept of career maturity as a developmental process and its relationship to motivation and academic success were concomitant goals. Students were introduced to academic resource personnel, including deans and department heads, and met in small groups to discuss course requirements and career implications for specific academic majors. This individualized contact with faculty members and deans was an important aspect of the workshop. The C/M D-M Workshop staff instructed students in options available at MSU for additional career planning through group or individual counseling sessions and career information research.

A process of self-assessment is especially important to students who express a level of ambivalence or uncertainty regarding their academic major/career goals; for other students, self-assessment can validate a previous decision and suggest alternatives to broaden perspective. The importance of self-knowledge and self-concept, as related to career decision making, have been clearly established by Super (1957), Bare (1970), Holland (1973), and Ory & Helfrich (1978). Accurate self-perceptions are crucial for effective career decision making and are a major component in developing career maturity. Crites (1974) defined career maturity in terms of four specific dimensions: (a) career choice competencies, (b) career choice attitudes, (c) realism of career choice, and (d) consistency of career choice.

Instrumentation

Short-term retention, the first dependent variable, was determined by ascertaining whether students returned for the 1983 spring semester at MSU. These data were collected from the registrar's office.

First semester grade point averages, another dependent variable, were collected from the registrar's office during the 1983 spring semester. Aggregate data were utilized in reporting this variable to protect student anonymity.

A questionnaire (see Appendix C), developed by this researcher to assess factors related to career maturity, school adjustment, school completion goals, and faculty interaction, was the final dependent variable. The questionnaire and cover letter (see Appendix D) were distributed to subjects during the 1983 spring semester, via U. S. mail to off-campus students and by residence hall staff to on-campus students. After 10 days, a follow-up letter (see Appendix D) was distributed to subjects who had not returned the questionnaire. Distribution was handled in the same manner previously described. After five days, a telephone survey was made to secure data from remaining subjects. An attempt was made to collect questionnaire data from not less than 70% of the subjects. From this population, 81 useable responses were received for a total of 98% return rate.

Statistical Techniques and Analysis of Data

Evaluating the significance level of short-term retention involved comparing nominal data from one group to another. Therefore, a chi square (χ^2) test of significance, at the .05 alpha level, was used.

An analysis of variance (ANOVA) was utilized to evaluate the level of significance regarding grade point average, which is continuous data. Since three groups were compared, an ANOVA was appropriate. An alpha level of .05 was used.

Responses on the questionnaire required the use of a chi square test of significance on the first four items, comparing nominal data from one group to another. The remaining items reflect ordinal scores on an interval scale (Likert-type), and an ANOVA was used to evaluate the level of significance between groups. An alpha level of .05 was used here also.

CHAPTER IV

Analysis of Data

Description of Analysis

This chapter presents an overview of the statistical treatment and analysis of data collected in this investigation. The interpretation of responses by MSU freshmen who comprised the experimental, control, and comparison groups are presented in narrative and tabular form.

The chi square (χ^2) test of significance was utilized to test the first hypothesis and the first four items of a questionnaire comprising the third hypothesis. Analysis of variance (ANOVA) techniques were used to test the second hypothesis and items 5 through 19 of the questionnaire of the third hypothesis. The Scheffé test was used to analyze further the means of the three groups on items where there was a significant difference.

Hypotheses

Hypothesis 1. There will be no significant difference in short-term retention among the three groups. This hypothesis involved a comparison of short-term retention for the experimental, control, and comparison groups. Results of the statistical analysis of the hypothesis are shown in Table 1. Of the experimental group 100% was retained, with 90% retention for the control group, contrasted with 76% retention for the comparison group. With χ^2 (2) = 6.46, $p < .05$, it was inferred

that there was a significant difference in short-term retention for the three groups; therefore, the null hypothesis was rejected.

Table 1

A Comparison of Short-term Retention for Experimental, Control and Comparison Groups

Group	Percentages		df	χ^2
	Retention	No Retention		
Experimental	100.0	0.0	2	6.46*
Control	90.0	10.0		
Comparison	76.7	23.3		

*$p < .05$.

Hypothesis 2. There will be no significant difference in first semester grade point average among the three groups. Results of the statistical analysis of the hypothesis are shown in Table 2. In this analysis, F (2, 68) = 1.12, $p > .05$, no significant difference in the grade point averages among the groups was discovered. Therefore, the null hypothesis was not rejected.

Table 2

A Comparison of Grade Point Averages for Experimental, Control and Comparison Groups

Group	M	SD	F
Experimental	2.37	.87	
Control	2.70	.91	
Comparison	2.74	.88	
			1.12

Hypothesis 3. There will be no significant difference in the type of response given in each of 19 questionnaire items among the three groups. This hypothesis involved comparison of responses among the experimental, control, and comparison groups. Items 1 and 4 (Hypotheses 3a through 3d) compared frequencies for the three groups relative to the change in academic major and career choice since orientation and the sureness level of current choice of academic major and career. A χ^2 test of significance was used to test these items, with data reflected in Tables 3 through 6; each will be discussed separately. Questionnaire items 5 through 19 (Hypotheses 3e through 3s) compare the three groups on factors associated with career maturity, school adjustment, goals for school completion and faculty interaction, the results of which are shown in Table 7. The ANOVA was used to evaluate the level of significance among the groups. Items which were significantly different were analyzed further by the Scheffé test, shown in Table 8.

The first item of the questionnaire involved a comparison of frequencies for the groups relative to the change of academic major since orientation. Results of the statistical analysis for this item are shown in Table 3. Nearly 75% or more of the students in each group retained the same academic major declared after orientation. No differences in the percentages of students changing academic majors were discovered, χ^2 (2) = 1.70, $p > .05$. Therefore, Hypothesis 3a was not rejected.

Table 3

A Comparison of Change of Academic Major Since Orientation for Experimental, Control and Comparison Groups

Group	Percentages		df	χ^2
	No Change	Change		
Experimental	85.7	14.3	2	1.70
Control	74.1	25.9		
Comparison	87.0	13.0		

The second item of the questionnaire involved a comparison of frequencies for the three groups relative to the sureness level of current academic major. Results of the statistical analysis for this item are given in Table 4. Over 65% of the comparison group was "very sure" of current academic major, compared to 44% and 19% for the control and experimental groups, respectively. All three groups were within the 30 to 38% range in the "fairly sure" category. The "not sure" category ranged from over 40% for the experimental group to less than 5% for the comparison group, with 18% for the control group. Significant differences among the groups were discovered, χ^2 (4) = 13.43, $p < .01$. Therefore, Hypothesis 3b was rejected.

The third item of the questionnaire involved a comparison of frequencies of the three groups relative to the change in career choices since orientation. Results of the statistical analysis for this item are given in Table 5. The same career choice declared after orientation was retained by 75% or more of the students in the experimental and comparison groups, as compared to nearly 60% of the control

Table 4

A Comparison of Sureness Level of Current Academic Major for Experimental, Control and Comparison Groups

Group	Percentages			df	χ^2
	Very Sure	Fairly Sure	Not Sure		
Experimental	19.0	38.1	42.9	4	13.43**
Control	44.4	37.0	18.5		
Comparison	65.2	30.4	4.3		

**$p < .01$.

group. No significant differences in the percentages of students changing career choices were discovered, χ^2 (2) = 4.99, $p > .05$. Therefore, Hypothesis 3c was not rejected.

Table 5

A Comparison of Change of Career Choice Since Orientation for Experimental, Control and Comparison Groups

Group	Percentages		df	χ^2
	No Change	Change		
Experimental	76.2	23.8	2	4.99
Control	59.3	40.7		
Comparison	87.0	13.0		

The fourth item of the questionnaire involved a comparison of frequencies for the three groups relative to their sureness level of current career choice. Results of the statistical analysis for this

item are given in Table 6. Of the comparison group, 60% was "very sure" of the current career choice compared to 33% and 14% of the control and experimental groups.

Over 30% of the experimental and 25% of the control group, compared to 8% of the comparison group, were "not sure" of their current career choice. However, over 50% of the experimental group was "fairly sure." Significant differences among the groups were discovered, χ^2 (4) = 11.11, $p < .05$. Therefore, Hypothesis 3d was rejected.

Table 6

A Comparison of Sureness Level of Current Career Choice for Experimental, Control and Comparison Groups

Group	Percentages			df	χ^2
	Very Sure	Fairly Sure	Not Sure		
Experimental	14.3	52.4	33.3	4	11.11*
Control	33.3	40.7	25.9		
Comparison	60.9	30.4	8.7		

*$p < .05$.

Statistical analysis of Items 5 through 19 of the questionnaire, given in Table 7, indicates significant differences among the groups, F (2, 68) = 3.13, $p < .05$. Significant differences found on four items (Nos. 5, 7, 8, and 19) were analyzed further by the Scheffé test, shown in Table 8, and are discussed separately. Therefore, Hypotheses 3e, 3g, 3h, and 3s were rejected. As illustrated in Table 8, the item which stated, "My career goals are clear and explicit," elicited a higher

rating from both the comparison and control groups than from the experimental group. The item which stated, "My career choice reflects my own values, interests, abilities, personality, and goals," elicited a higher rating from the comparison group than from the experimental and control groups. The item which stated, "My current academic major is directly related to my career goals," elicited a higher rating from the comparison group than from the other two groups. The item which stated, "I feel I need help in developing more realistic career decisions," elicited a higher rating from the experimental group than from the control or comparison groups. Of the remaining questionnaire items no significant differences among the groups were discovered. Therefore, Hypotheses 3f, 3i, 3j, 3k, 3l, 3m, 3n, 3o, 3p, 3q, and 3r were not rejected.

Table 7

A Comparison of Factors Associated with Career Maturity, School Adjustment, School Completion Goals, and Faculty Interaction for Experimental, Control and Comparison Groups

Items	Experimental (G_1)a		Control (G_2)b		Comparison (G_3)c		
	M	SD	M	SD	M	SD	F
5. My career goals are clear and explicit.	3.43	1.50	4.78	1.53	4.96	1.33	7.21**
6. Deciding about a career has caused me a great deal of anxiety.	4.81	1.60	3.81	1.42	3.87	1.60	2.96
7. My career choice reflects my own values, interests, abilities, personality, and goals.	4.86	1.53	5.56	1.19	6.09	1.12	5.10**
8. My current academic major is directly related to my career goals.	4.67	1.15	5.48	1.70	6.13	.87	6.79**
9. Since coming to MSU, I know more about myself as a person.	5.52	.98	5.26	1.40	5.43	1.16	.74
10. Since coming to MSU, I have learned to be a more mature decision maker.	5.57	.87	5.56	1.05	5.57	1.08	.99
11. Since coming to MSU, I have learned to be more realistic about choosing a career.	5.10	.89	5.44	.89	5.30	1.02	.83
12. Since coming to MSU, I feel more confident about my career goals.	4.38	.86	4.59	1.25	5.00	1.28	1.64
13. I feel I possess the competencies to acquire the skills needed in my chosen career.	5.10	1.09	5.37	1.33	5.65	.98	1.27
14. My college achievements and experiences have been about as I expected them to be.	4.48	1.29	4.33	1.33	5.09	1.28	2.27
15. I think I will successfully complete the freshman year.	5.67	1.32	5.96	.81	6.00	.85	.74
16. I plan to graduate from college.	6.52	.68	6.30	.91	6.74	.45	2.35
17. Faculty advising at MSU has been helpful to me.	4.24	1.30	4.96	1.63	4.22	1.44	2.07
18. I feel I have had meaningful interaction with my teachers at MSU.	4.10	1.51	4.30	1.54	4.17	1.19	.12
19. I feel I need help in developing more realistic career decisions.	4.81	1.81	3.96	1.58	3.13	1.71	5.40**

[a]N = 21
[b]N = 27
[c]N = 23

**p < .01

Table 8

Results of Scheffé Tests for Items Showing Significant Differences in Responses for Experimental, Control and Comparison Groups

Item		Results[a]
5.	My career goals are clear and explicit.	$G_3 > G_1$; $G_2 > G_1$
7.	My career choice reflects my own values, interests, abilities, personality, and goals.	$G_3 > G_1$
8.	My current academic major is directly related to my career goals.	$G_3 > G_1$
19.	I feel I need help in developing more realistic career decisions.	$G_1 > G_3$

[a]NOTE: G_1 = Experimental Group

G_2 = Control Group

G_3 = Comparison Group

CHAPTER V

Summary, Conclusions and Recommendations

Summary

The purpose of this study was to evaluate the impact of a pilot career planning workshop on freshman student participants by comparing their short-term retention, first semester grade point average, and questionnaire responses with those of nonparticipants. The respondents of this study were 83 freshman students from Mississippi State University who participated in the regular freshman orientation program prior to their first semester of enrollment. Subjects were randomly selected from the population of the freshman class. The 23 subjects who participated in a career planning workshop during orientation, having expressed ambivalence regarding their choice of educational major on the ACT report, comprised the experimental group in this study. The 30 subjects who comprised the control group also expressed ambivalence regarding their choice of academic major on the ACT report, but did not participate in a career planning workshop. The 30 subjects who comprised the comparison group expressed no ambivalence regarding their choice of academic major, having responded in the category of "very sure" on the educational plans statement of the ACT report. These students did not participate in a career planning workshop.

The first hypothesis stating that there will be no significant difference in short-term retention among the three groups was rejected

at the .05 level of significance. There were significant differences in the rate of retention of the three groups.

The second hypothesis stating that there will be no significant difference in first semester grade point average among the three groups was not rejected. There seemed to be no significant differences among the three groups with regard to their first semester grade point average.

The third hypothesis stating that there will be no significant difference in the type of response given in each of 19 questionnaire items among the three groups was rejected on six of the 19 items. These six items proved significantly different for the three groups and, therefore, the corresponding six parts of Hypothesis 3 were rejected. The remaining 13 parts of the hypothesis were not rejected.

Conclusions

Based on the analysis of data reported in Chapter IV, the following conclusions are presented.

Short-term retention differed significantly among the three groups. Of the experimental group, there was a 100% retention rate, compared to 90% and 76% retention rate for the control and comparison groups, respectively. Therefore, it seems that the treatment in this study had an impact on the experimental group in terms of short-term retention, and may be indicative of the value of intervention programs designed to assist students in academic major/career decision making. This study, therefore, confirms Hillery's (1978) contention that career planning, as an institutional strategy, can be a primary factor in student enrollment

and attrition. The study also supports conclusions reported in the Glennan (1975) study which showed a significant reduction in freshman attrition, attributed to career and personal counseling. The results of this study support the Endo (1979) longitudinal study which found that persisters when compared to nonpersisters, as a group, used campus advising sources more. Perhaps students who seek additional advice and counsel are demonstrating their involvement in the institution, a consistent cue related to attrition.

The 24% dropout rate for the comparison group, comprised of students who had indicated no ambivalence regarding choice of academic major, does not support national studies (Chase, 1965; Hackman & Dysinger, 1970; Astin, 1975; Noel, 1978; Beal & Noel, 1979; Willner, 1980), which found a direct relationship between clarity about academic major/career goals and retention. Perhaps other factors contributed to this relatively higher dropout rate of students in the comparison group. For example, the validity of the ACT sureness statement may be suspect and may not be a reliable, lasting measure.

First semester grade point averages were not significantly different among the three groups. The literature review suggested that students who have established career goals are behaviorally directed toward achieving those goals, reflected by grades. The comparison group was "very sure" of academic major, indicating clear career goals. Yet, the experimental and control groups, which had indicated ambivalence, performed at a comparable level. Some motivational or affiliation phenomena seem to have occurred for these two groups. Another implication may be that the less sure student is simply more

cautious, conservative, or tentative in decision making and risk taking, though stable in pursuing even a tentative goal.

Responses on 13 of the 19 questionnaire items were not significantly different among the three groups. Responses on six items were significantly different among the groups and each will be discussed.

Responses regarding sureness level of current academic major were significantly different at the .01 level, with 65% of the comparison group, 44% of the control group and 19% of the experimental group responding as "very sure." The comparison group, having initially responded as "very sure" on the ACT report, dropped considerably in their sureness level following first semester. This shift, from 100% "very sure" to 65% "very sure," 30% "fairly sure" and 4% "not sure" may be indicative of an initial unrealistic choice. Unrealistic academic major choices, though decisive, may have been a factor in this study. Noel (1978) said that only one of every three entering freshmen is "very sure" about an academic major. On the other hand, this shift may be indicative of the ACT response statement being suspect or unreliable over time, as discussed previously. It seems clear that a developmental or maturational change occurred in all three groups. For example, a shift to the "very sure" category by the experimental and control groups was an expected outcome, a function of time and maturation. However, the inverse shift, from "very sure" to less sure categories by the comparison group was unexpected and relatively dramatic and may indicate unrealistic decisions. It also could be related to the MSU admissions policy which requires freshmen to declare a major at the time of admission.

Responses regarding sureness level of current career choice were significantly different at the .05 level. Of the comparison group, 60% responded as "very sure" compared to 33% and 14% of the control and experimental groups, respectively. Over 30% of the experimental and 25% of the control groups responded as "not sure." However, 50% of the experimental group was "fairly sure." These data show a consistent pattern of developmental shift evidenced and discussed in the previous item.

Responses to the statement, "My career goals are clear and explicit," also coincide and are consistent with the previous two items. Significantly different at the .01 level, the more positive response came from the comparison group. This is an expected outcome, considering the initial response of the three groups and the developmental pattern of change exhibited.

Responses to the statement, "My career choice reflects my own values, interests, abilities, personality, and goals," were significantly different at the .01 level, with more positive responses indicated by the comparison group than by the experimental and control groups. The statement is intended to reflect career maturity. Weigand (1953) suggested that making a career choice on the basis of one's own values is a cue of a successful student.

Responses to the statement, "My current academic major is directly related to my career goals," were more positive by the comparison group than by the other two groups. This outcome may be related to the fact that 24% of the comparison group, no longer enrolled, may have left school for this reason. Willner (1980) suggested a direct

relationship between perceptual clarity of academic major to career goals and retention.

Responses to the statement, "I feel I need help in developing more realistic career decisions," were more positive for the experimental group than for the control or comparison groups. Again, this outcome is consistent with previous findings of the study. The experimental group's level of response may also suggest a sensitized awareness of the availability of further career planning assistance and a comfortableness in seeking such help, due to experiences in the career planning workshop during orientation. Also, despite differences in sureness levels between the groups, the comparable academic performance level (qpa) achieved by the experimental group suggests a motivational, affiliative accomplishment. According to previously cited studies Tinto, 1975; Pascarella & Terenzini, Note 7), social involvement is important, especially for women, and participation in institutional programs may be related to academic success. In this study, the proportion of women to men in the experimental group (15 female, 8 male) was greater than in the control (14 female, 16 male) and comparison (13 female, 17 male) groups. As discussed in the introduction of this study, the degree of active involvement in the academic and social life of an institution is directly related to retention and is especially important during the first semester of the freshman year. To the extent that such integration occurs, retention increases. This phenomenon follows the well accepted premise that one of the basic developmental needs of the adolescent and young adult is to be accepted into the primary peer group. The struggle to achieve this belonging, i.e.,

integration, may be demonstrated by an effort to reach out for help, seemingly reflected in response to this item by the experimental group in this study.

Recommendations

The following recommendations are submitted in response to information discovered and outcomes which seem to exist as a result of this study.

1. Due to the apparent value of career planning programs shown in this study, it is recommended that the PCIC continue similar intervention programs for future MSU freshman classes. Appropriately designed programs should be offered not only during orientation but in subsequent periods as well, such as prior to second semester registration and prior to preregistration for the sophomore year.

2. Because of the developmental nature of career decision making, it is recommended that the PCIC extend this type of career planning service to transfer students during future orientation programs.

3. As a part of this intervention strategy, it is recommended that the PCIC staff or an appropriate student affairs or academic affairs research committee or office continue a similar study on the impact of academic major/career planning programs on attrition, academic success, change patterns of departmental majors, and other pertinent measures. A longitudinal effort would be desirable.

4. Utilization of the ACT Assessment Student Profile Report statement should not be used as the sole criterion for classifying students into categories for future research. A replacement or

supplemental data base could be generated during orientation or registration, to identify a more current status of students regarding their academic major/career goals.

5. More effective, systematic follow-up strategies to assess student motivations and reasons for dropout are recommended. An institution-wide effort could contribute to more meaningful understandings needed to assess and effectively "treat" the attrition problem at MSU. Standardized methods to determine academic major/career path changes should be implemented, a strategy appropriate in evaluating student needs and departmental planning for academic advisement.

6. Given MSU's admission policy which requires freshman students to declare an academic major, a systematic advisement system would probably enhance opportunities for student academic success and minimize attrition. An academic advisement system is supported at MSU and works well in some departments; in others, it seems dysfunctional or nonexistent. To work more effectively on an institution-wide basis, the system needs procedure and process revision to allow close articulation between the faculty who serve in academic advisement roles and others whose professional roles interface this function, such as career and personal counselors and residence hall staff. Since attrition and problems leading to attrition tend to occur at a greater rate during the freshman and transfer years, it is recommended that all lower-division (freshman and sophomore) and first-year transfer students who acquire academic deficiencies at midterm be required an assessment interview. This procedure would include appropriate reporting and advisement strategies designed to assist the student. Periodic assessment reviews

would continue as long as deficiencies were maintained, at least through the sophomore year and up to the junior year to accommodate transfer students. A campus-wide, "hands-on" academic advisement system should facilitate student opportunity for important academic and interpersonal assistance. Such assistance could include study skills development, tutoring, exploratory career planning leading to a realistic choice of academic major, and special role modeling leading to teacher-friend, i.e., mentor, relationships. It is probable that appropriately determined and designed strategies to assist students could be implemented more effectively within a system which did not require a student to declare an academic major at the time of admission. Within such a system, any stigma attached to being undecided or ambivalent would be removed and would probably increase student motivation to receive special assistance needed in making realistic academic major decisions.

APPENDICES

APPENDIX A

C/M D-M Brochure and Registration Form

Placement and Career Information Center
Mississippi State University
P.O. Drawer P
Mississippi State, MS 39762
316 Union Bldg.
(601) 325-3344

NOTE TO PARENTS:
The Career/Major Decision-Making Workshops are designed for student participation only. You are invited to come to campus with your son or daughter for the June 9 workshops and spend the day visiting the campus and shopping in Starkville. On-campus housing will be $5.25 per person for the evening of June 9. On-campus housing for the June 16-18 workshops will be included in the Orientation fees. Off-campus accommodations must be arranged on an individual basis.

PLACEMENT AND
CAREER INFORMATION
CENTER

In cooperation with
FRESHMEN ORIENTATION 1982

Return In Enclosed Envelope
With Orientation 1982 Registration

NOTE: Payment must be made separately from Orientation fees. Make checks payable to Mississippi State University.

This publication was produced by the Placement and Career Information Center, April, 1982.

The Placement and Career Information Center in cooperation with Freshmen Orientation 1982 is offering to entering freshmen assistance in developing career/vocational and educational plans.

Many university students do not know what they really want to major in or pursue as a career; others have vague notions about career opportunities, but lack direction or planning. National surveys indicate that at least 50% of university-level students need career assistance.

Your participation in **Career/Major Decision-Making Workshops** will provide an opportunity for individual and group activity in discovering, assessing, and integrating information about yourself in relationship to appropriate careers and academic majors.

Workshops will be offered on June 9, preceding the two-day Orientation session. The same workshop will be offered **during** the three-day Orientation session on June 16-18. The six-hour workshops will be divided into three two-hour sessions:

I. **Self-Assessment:** activities designed to identify your interests, skills, and abilities by examining your education, work experiences, and hobbies.

II. **Decision-Making:** small group discussions to assist you in making decisions related to your education and future careers.

III. **Educational Alternatives at MSU:** an in-depth look at academic majors relevant to your educational and career goals.

You may register by returning the attached application form and check/money order (separate from Orientation check/money order) in the enclosed envelope.

I would like assistance with my career/vocational and/or educational planning.

NAME _____

MAILING ADDRESS _____

TELEPHONE _____

MAJOR GIVEN ON MSU APPLICATION FOR ADMISSSION _____

HOW SURE ARE YOU OF YOUR MAJOR CHOICE? (circle) Very Sure | Fairly Sure | Not Sure

I HAVE ENCLOSED: (circle)
$15.25 for June 9 (on-campus housing)
$10.00 for June 9 (off-campus)
$10.00 for June 16-18 (on-campus or off-campus)

MY PARENTS WILL ATTEND AND I HAVE ENCLOSED: (circle)
$5.25 for June 9 (on-campus housing) per parent
No charge for June 9 (off-campus)
No charge for June 16-18 (on-campus or off-campus)

AMT _____

NUMBER _____

PARENTS 0 1 2

AMT _____

TOTAL _____

FOR OFFICE USE ONLY

	VS	FS	NS
6/9			
6/16-18			
OR			
6/9 OR 6/16-18			

APPENDIX B

C/M D-M Workshop Content Sequence Outline and Sample Schedule

C/M D-M WORKSHOP

CONTENT AND SEQUENCE OUTLINE

1. INTRODUCTION - Introduction of Workshop Leaders and Participants
   - Overview of Workshop

2. GOALS OF WORKSHOP - Explanation of Model* (See attachment)

3. QUESTIONNAIRE - Participants complete pre-test questionnaire

4. SELF DIRECTED SEARCH: A GUIDE TO EDUCATIONAL AND VOCATIONAL PLANNING - John Holland
   - Explanation of what the assessment technique is, how it works, how to interpret it, how it relates to the overall career planning model
     (6 types of occupational types--Realistic, Investigative, Artistic, Social, Enterprising, and Conventional)
   - Direct students through each sequence of activity:
     Occupational daydreams
     Activities I like to do
     Competencies
     Feelings and attitudes about different kinds of work
     Self-Estimates
     Evaluation

5. CAREER DECISION-MAKING FILM - Krumboltz
   - Discussion of steps in career planning:
     - Formulate problem and goals
     - Commit time (in advance)
     - Generate alternatives (30,000 different occupations)
     - Collect information about alternatives
       Sample the work
       Use job experience kit
       Interview employees
     - Estimate consequences and predicting success
     - Reevaluate
     - Decide tentatively (prioritize choices)
     - Recycle

6. PERSONALITY MOSAIC - A self-assessment inventory, developed by Betty N. Michelozzi (Coming Alive From Nine to Five: The Career Search Handbook, 1980)
   - After completion and interpretation, small group discussion and sharing of work experiences, school experiences, hobbies as they relate to personality mosaic.

7. WORK ACTIVITIES CHECKLIST - **from Career Planning and Decision Making for College, 1980. McKnight Publ. Co.

8. WORK SITUATIONS CHECKLIST**

9. APTITUTDE SELF-ESTIMATE RECORD**

10. WORKER TRAIT GROUP CHARTS**

11. GUIDE TO OCCUPATIONAL EXPLORATION
    - Occupation Outlook Quarterly
    - The Job Group Chart
    - The College Majors Chart
    - Occupational Outlook Handbook

12. PREPARATION FOR EXPLORATORY EXPERIENCES AND DISCUSSIONS WITH ACADEMIC REPRESENTATIVES

13. VISIT TO PCIC CAREER LIBRARY
    - Bibliography
    - Introduction to self-help career tools

14. EVALUATION AND POST-TEST QUESTIONNAIRE

C-M D/M WORKSHOP - CAREER MODEL*

CAREER	I (ME) INTERESTS (What I like to do)	SKILLS (What can I do)	VALUES (What do I want to do)
INTERESTS	1	2	3
SKILLS	4	5	6
VALUES	7	8	9

Explanation of Model -- The "IDEAL" is a 1-5-9 Combination.

SAMPLE SCHEDULE

CAREER/MAJOR DECISION-MAKING WORKSHOP

Placement and Career Information Center

Mississippi State University

Wednesday, June 16, 1982

10:00 AM-12:00 NOON

Introduction
Career Decision-Making Film
Self-Directed Search
Personality Mosaic

4:30 PM-6:30 PM

Work Activities Checklist
Work Situations Checklist
Aptitudes Checklist
Worker Trait Group Charts

Thursday, June 17, 1982

1:30 PM-2:30 PM

Visits wth Academic Representatives

2:30 PM-3:30 PM

Bibliography
Visit to PCIC Career Library
Evaluation

APPENDIX C

MSU Freshman Student Questionnaire

MSU FRESHMAN STUDENT QUESTIONNAIRE

INSTRUCTIONS: On the first 4 questions, please answer each by filling in the blanks and checking the appropriate response.

1. What was your choice of **academic major** at the conclusion of orientation?

   _____

   What is your current academic major?

   _____

2. How sure are you of your current choice of academic major?

   ____ Very Sure
   ____ Fairly Sure
   ____ Not Sure

3. What was your **career** choice at the conclusion of orientation?

   _____

   What is your current career choice?

   _____

4. How sure are you of your current career choice?

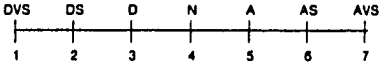
   ____ Very Sure
   ____ Fairly Sure
   ____ Not Sure

INSTRUCTIONS: On the remaining questions, please answer the items according to the degree of **agreement** or **disagreement** you feel is applicable to you. The continuum scale runs from a value of 1 to 7, as shown. Please **CIRCLE** your answer.

1 - Disagree Very Strongly (DVS)
2 - Disagree Strongly (DS)
3 - Disagree (D)
4 - Neither Agree or Disagree (N)
5 - Agree (A)
6 - Agree Strongly (AS)
7 - Agree Very Strongly (AVS)

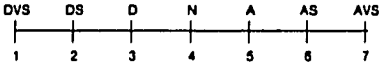
EXAMPLE: My career goals are clear and explicit.

5. My career goals are clear and explicit.

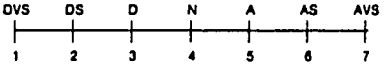


6. Deciding about a career has caused me a great deal of anxiety.

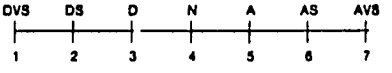
7. My career choice reflects my own values, interests, abilities, personality, and goals.



8. My current academic major is directly related to my career goals.



9. Since coming to MSU, I know more about myself as a person.



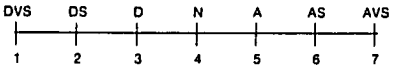
10 Since coming to MSU, I have learned to be a more mature decision maker.

11 Since coming to MSU, I have learned to be more realistic about choosing a career.

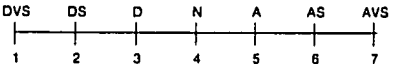
—TURN PAGE AND CONTINUE—

12. Since coming to MSU, I feel more confident about my career goals.

13. I feel I possess the competencies to acquire the skills needed in my chosen career.

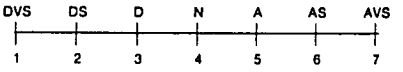


14. My college achievements and experiences have been about as I expected them to be.

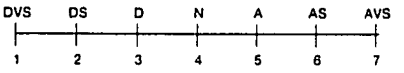


15. I think I will successfully complete the freshman year.

16. I plan to graduate from college.

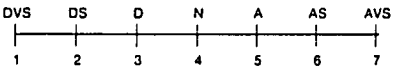


17. Faculty advising at MSU has been helpful to me.



18. I feel I have had meaningful interaction with my teachers at MSU.

19. I feel I need help in developing more realistic career decisions.



NOTE: Please return this questionnaire as soon as possible. A self-addressed, stamped envelope is provided for your convenience.

Thank you again for your help and participation

February, 1983

APPENDIX D

Cover Letter and Follow-Up Letter to Subjects

MISSISSIPPI STATE UNIVERSITY
DEPARTMENT OF COUNSELOR EDUCATION

COLLEGE OF EDUCATION
DRAWER GE
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-3426

February 1, 1983

You have been randomly selected from your freshman class to participate in this survey. Your completion of the questionnaire will contribute to a study of some of the experiences of MSU freshman students. Such information will aid the development of future programs and services designed to assist MSU students in reaching their academic and career goals.

Your participation is voluntary, and your identification will be handled confidentially. All data will be analyzed according to group methodology, thus maintaining individual anonymity.

Your interest and participation is deeply appreciated.

Sincerely,

Shirley M. Jones
Doctoral Student
Department of Counselor Education

Joe Ray Underwood

Dr. Joe Ray Underwood
Professor of Counselor Education

NOTE: Please return the questionnaire as soon as possible. A self-addressed, stamped envelope is attached for your convenience.

MISSISSIPPI STATE UNIVERSITY
DEPARTMENT OF COUNSELOR EDUCATION

COLLEGE OF EDUCATION
DRAWER GE
MISSISSIPPI STATE, MISSISSIPPI 39762
PHONE (601) 325-3426

February 21, 1983

Two weeks ago a randomly selected group of students was asked to participate in a freshman class survey by completing the enclosed questionnaire. Student involvement and feedback is critical to this study of some of the experiences of MSU freshman students.

To date, your questionnaire has not been received. In the event you have misplaced the survey instrument, a second copy is provided. I would appreciate your response in the next few days. A self-addressed, stamped envelope is enclosed for your convenience.

Sincerely,

Shirley M. Jones

Shirley M. Jones
Doctoral Student
Department of Counselor Education

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